

US006582172B2

(12) United States Patent

Nickerson et al.

(10) Patent No.: US 6,582,172 B2

(45) Date of Patent: Jun. 24, 2003

(54)	ISOLATED MEG	CHANICAL FASTENING
	SYSTEM	

(75) Inventors: Earl S. Nickerson, Little Compton, RI

(US); Wayne C. Tucker, Exeter, RI (US); Francis C. Spicola, Portsmouth,

RI (US)

(73) Assignee: The United States of America as

represented by the Secretary of the Navy, Washington, DC (US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/942,281

(22) Filed: Aug. 29, 2001

(65) Prior Publication Data

US 2003/0044256 A1 Mar. 6, 2003

(51) Int. Cl.⁷ F16B 43/00

(52) U.S. Cl. 411/371.1; 411/338; 277/598; 277/639; 403/408.1

593, 639

(56) References Cited

U.S. PATENT DOCUMENTS

3,286,577 A * 11/1966 Weidner, Jr. 277/640

4,289,061	Α	٠	9/1981	Emmett	411/10
4,659,268	Α	•	4/1987	Del Mundo et al	411/34
4,834,569	A	٠	5/1989	Foote et al	403/179
4,975,008	Α	٠	12/1990	Wagner	411/337
5,228,795	Α	*	7/1993	Gray	403/30
5,397,206	Α	٠	3/1995	Sihon	411/369
5,645,282	A	٠	7/1997	Belter	277/598
5,646,076	A	•	7/1997	Bortz	188/251 A

^{*} cited by examiner

Primary Examiner—Flemming Saether
Assistant Examiner—Jori Schiffman
(74) Attorney, Agent, or Firm—James M. Kasischke;
Michael F. Oglo; Jean-Paul A. Nasser

(57) ABSTRACT

An isolated mechanical fastening system, which includes an exterior first section having a first transverse bore. The system also includes an exterior second section having a second transverse bore, wherein the second transverse bore is aligned with the first transverse bore. There is also an interior third section having a third transverse aperture. This third section is interposed between the first section and the second section and the third transverse bore is aligned with the first and second transverse bores. A fastener is positioned in the first, second and third transverse bore and is fixed to the first section. A polymeric material is positioned in the third section between the fastener and the peripheral wall of the third section.

6 Claims, 1 Drawing Sheet

